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ABSTRACT

The perceived self-efficacy concept plays a significant role in predicting human performance in several areas of human effort, but self-efficacy theory has seldom been applied in the fields of adult literacy and English as a second language (ESL). This study designed a questionnaire for adult literacy and ESL learners to assess their self-efficacy perceptions toward learning and literacy. From the following four studies 119 questions were drawn: Children's School Attitude Schedule (Barker Lunn as adopted by Marjoribanks 1970); Nowicki-Strickland Locus of Control Scale (1973); Self-Efficacy Scale (Sherer and Maddux 1982); and the Self-Efficacy for Academic Achievement Scale (Zimmerman et al. 1992) and the author's work; these were edited to 36 questions. The questionnaires were pilot tested with 45 intermediate-level Intensive English Program adult literacy students at Indiana University and 28 students from two adult basic education programs in Indianapolis. After pilot testing, some items were eliminated, including six locus-of-control items, and some of the items were moved around or reworded. The final questionnaire, with its high reliability and face validity, should prove useful for measuring the general self-efficacy level of both the adult literacy and ESL literacy learners. Further research is needed to test the questionnaire with broader groups of learners and to determine if other adult perceptions should be added to the questionnaire. The questionnaire is appended. (Contains 25 references.) (KC)

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# Adult and ESL Literacy Learning Self-Efficacy Questionnaire

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**Abstract**

The perceived self-efficacy concept plays a significant role in predicting human performance in several areas of human effort. In the fields of adult literacy and English as a second language learning, self-efficacy theory has seldom been applied. However, there is a clear need for research in this area since persistence of effort is likely to be a major factor in learner success in these areas. This study designed a questionnaire for adult literacy and ESL learners to assess their self-efficacy perceptions toward learning and literacy. After pilot testing of a draft questionnaire, thirty items were selected for the final form, based on their validity and reliability.

**Adult Literacy and ESL Learning Self-Efficacy Questionnaire**

The perceived self-efficacy concept plays a significant role in predicting human performance in several areas of human effort. Self-efficacy expectations are the beliefs about one's ability to perform a given task or behavior successfully. Bandura (1986) indicates that because perceived self-efficacy directly mediates the integration and application of existing skills, the influence of perceived self-efficacy on performance increases as component skills are mastered. Sherer and Maddux (1982) describe the main points of self-efficacy theory as follows: ". . . personal mastery expectations are the primary determinants of behavioral change; individual differences in past experiences and attribution of success to skill or chance result in different levels of generalized self-efficacy expectations." Several research studies have determined that self-perception of the origins of success plays a role in human performance. Bandura (1977), investigating the treatment of various phobias, found that efficacy expectations determine people's aspiration and persistence. Feltz (1982), studying the athletic performance of college students, found that subjects' actual diving performance strongly correlates with their perceived senses of their own abilities. Lent, Brown and Larkin (1984) found high correlation between subjects' perceptions of self-efficacy and subjects' persistence and success in college science and engineering study. Chambliss and Murray (1979), investigating people's weight reduction, found that subjects' internal and external locus of control orientation influenced their further weight reduction. In a related area, Marjoribanks (1980) studying ethnic families and children's school persistence and achievement, found that children's attitudes toward school related strongly to their academic achievement. Schunk (1994) has examined the impact

of strategy training upon children's perceptions of literacy self-efficacy using a few items directly related to paragraph writing. Yang (1993) has used locus of control and o: ! proficiency related items to develop profiles of language beliefs among undergraduate ESL learners in Taiwan. Neither Schunk or Yang reported validity or reliability information on their measures. Thus it can be seen that, in a variety of arenas, people's attitudes toward tasks and senses of their own abilities are related to their likelihood of persisting in the face of difficulty.

The studies cited above document the role in human performance of a constellation of perceptions and attitudes that have tended to be described using the labels: self-efficacy, self-concept, and attitude. Some studies, such as those of Bandura, clearly delimit self-efficacy to assessments of an individual's perceptions about his or her ability and likelihood of persistence. Other studies widen the concept to include a general sense of the degree to which an individual is in control of outcomes (i.e., locus of control), while still others assess general attitudes in relation to an activity and the degree to which the activity is linked to personal aspirations. It is likely that the concepts above are inter-related especially in connection with adult attitudes toward improving literacy. Improving literacy takes a significant amount of effort and practice. Adults for whom literacy has been difficult in the past may be hindered by negative self perceptions of ability, persistence, control, and even the value of literacy itself. Indeed some researchers have documented the extreme negative feelings about past literacy experiences held by many low literate adults (Bean, et al., 1989; Van Tilburg & Dubois, 1989). Similarly, for them to succeed, English as a second language learners need to seek out English language opportunities. Learners who perceive themselves as

ineffective or see little value in the language are unlikely to make the needed effort. Based on the discussion above, the current instrument development study will consider five aspects of the self-efficacy concept - ability, persistence, locus of control, aspiration, and general value of activity - to assess adult learners' perceived self-efficacy in relation to literacy and English language learning in a thorough and specific way.

In the fields of adult literacy and English as a second language (ESL), self-efficacy theory has seldom been applied. However, there is a clear need for research in this area. Since adults have a wide experience of life, their self-efficacy expectations are especially likely to be influenced by past attributions of success.

It seems likely, then, that effective literacy and English as second language programs will need to address these areas of attitude along with areas of skill. An important beginning step is the development of a measure to assess changes in the attitudes and perceptions of literacy and language learners. Research in other areas suggests that these expectations will surely influence their learning attitude and motivation which, in turn, will influence later success. Since, to a degree, attitudes and perceptions of self-efficacy are linked to specific subjects and tasks, a self-efficacy and attitude measure linked to literacy and language study is needed. A well-developed self-efficacy measure for these areas can function both as a predictor of adults' learning directions and as a sign of how they have changed during the learning process. To develop a thorough questionnaire, this study adapted items from the self-efficacy measures used in a variety of earlier studies. Items were selected to reflect the five elements of self-efficacy described above: ability, persistence, locus of control, aspiration, and general value of activity.

Ability

Sherer and Maddux (1982) constructed and assessed a generalized self-efficacy scale with expectancies in areas such as social skills or vocational competence. Three hundred and seventy six students in introductory psychology classes rated themselves on 14-point Likert scales. The scales ranged from "strongly disagree" to "strongly agree". Twenty-three items were divided into two sub-scales: the General Self-efficacy sub-scale, and the Social Self-efficacy sub-scale. An example item from the first sub-scale is: "When I make plans, I am certain I can make them work." For the second sub-scale, an example is: "It is difficult for me to make new friends." The Cronbach alpha reliability coefficient for the General Self-efficacy scale was 0.86 and for the Social Self-efficacy sub-scale 0.71. Compared with the alpha value of 0.6 recommended by Nunnally (1978) for scales to be used in basic research, these alpha reliability coefficients are fairly high for a sample size of 376.

Ability and Persistence

Zimmerman, Bandura and Martinez-Pons (1992) studied self-motivation for academic attainment. Two scales were used in this study: the self-efficacy for self-regulated learning scale which included 11 items, and the self-efficacy for academic achievement scale which included nine items. One example from the self-regulated learning scale is: "How well can you study when there are other interesting things to do?" An example question from the academic achievement scale is: "How well can you learn general mathematics?" Students rated their perceived self-efficacy on a 7-point scale. One hundred and two ninth and tenth graders participated in this study. Cronbach alpha reliability tests were conducted

for each of the scales. The coefficient of reliability was 0.87 for the self-regulated learning scale and 0.70 for the academic achievement scale. For a sample size of 120, the two self-efficacy scales are moderately highly reliable.

Locus of Control

Nowicki and Strickland (1973) presented a measure of a generalized locus of control for children. The Nowicki-Strickland Locus of Control scale consisted of 40 questions based on Rotter's (1966) definition of the internal-external control of reinforcement dimension. Respondents answered either yes or no to each item. The items describe reinforcement situations across interpersonal and motivational areas such as affiliation, achievement, and dependency. One example question is: "Most of the time, do you feel that you can change what might happen tomorrow by what you do today?" The sample consisted of 1,017 mostly Caucasian elementary and high school students in four different communities. All schools were in a county bordering a large metropolitan school system. Test-re-test reliability coefficients for a six-week interval were 0.63 (for Grade 3), 0.66 (for Grade 7) and 0.71 (for Grade 10). For a large sample of 1017, the reliability values are moderately high.

Aspiration and Activity Perception

Marjoribanks (1980) adopted Barker Lunn's (1970) Children's School Attitude Schedule to test the relationship between children's school attitudes and their achievements in different family environments. For instance, one of the item statements is: "School is boring." Another example item is: "I would like to be very good at schoolwork." The responses to each statement were made on a five-point scale ranging from strong agreement to strong disagreement. The

questionnaire contained two factors: 28 items for an affective component, and 19 items for a cognitive-behavioral component. The theta reliability for the affective component was 0.80 and for the cognitive-behavioral component 0.76. Both are moderately highly reliable.

## Method

The purpose of this study is to develop a self-efficacy questionnaire in the area of adult literacy and ESL teaching. Using clear and simply-worded statements, this questionnaire intends to provide researchers in the field of adult literacy and ESL with a handy, concise and accurate guide to investigate learners' judgments of their capabilities in literacy and learning. This study will provide both researchers and teachers with a better way to understand adult learners.

This questionnaire is designed to assess adult literacy and ESL learners' self-efficacy expectations toward learning and literacy. Eighty three questions were originally drawn and modified from the measurements used in the four studies described above: 20 questions from Children's School Attitude Schedule (Barker Lunn as adopted by Marjoribanks, 1970), 26 from the Nowicki-Strickland Locus of Control Scale (Nowicki & Strickland, 1973), 23 from the Self-Efficacy Scale (Sherer & Maddux, 1982), and 14 from the Self-Efficacy for Academic Achievement Scale (Zimmerman, Bandura & Martinez-Pons, 1992).

The 83 items drawn from the above scales, which were mainly in academic and learning fields, were supplemented by other author created items to produce a total of 119 questions. Obviously a questionnaire with 119 items is too long for adult literacy and ESL learners, whose low facility with literacy prevents answering such a long questionnaire. To achieve more appropriate brevity, thirty-six of the

original 119 items were selected based on the five categories of learners' self-efficacy mentioned earlier. Among them, all but six items originated from the above scales. The following list includes the five categories and an example item from each:

(a) ability: 13 items

e.g.: I learn new words easily.

(b) persistence: 9 items

e.g.: If I can't understand a reading the first time, I keep trying until I can.

(c) locus of control: 6 items

e.g.: I feel that when good things happen, they happen because of hard work.

(d) aspiration: 3 items

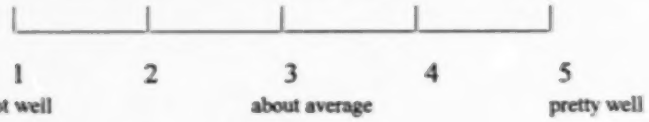
e.g.: I would like to be very good at writing.

(e) activity perception: 5 items

e.g.: Reading is boring.

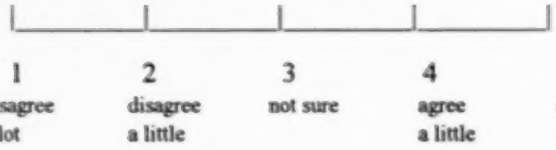
Two types of format were selected for items. The first which included eight items, asked subjects to estimate "how well" they believe they can do certain tasks using five-point scales ranging from "not well" to "pretty well". The second format, which included 28 items, made simple statements and asked for subject agreement or disagreement along a simple five-point scale. A sample format one question was:

How well can you concentrate on what you are learning?




A sample format two question was:

I think that I am pretty good at my writing work.




The Adult Literacy and ESL Learning Self-Efficacy Questionnaire is a paper-and-pencil measure. Five point measurement scales were chosen because they could clearly reflect the subjects' decisions and because they were easier for subjects to decide upon than a measurement scale of seven or more points.

One goal of this questionnaire is to make items readable and comprehensible for adult literacy and ESL learners. Therefore the statement in each item has been made as simple, clear, and understandable as possible.

Subjects

The 36-item questionnaire was given to two samples of adult learners. One of them was drawn from students attending the IEP (Intensive English Program) at Indiana University, Bloomington, Indiana; the other sample was drawn from adult literacy learners at two Adult Basic Education programs in Indianapolis, Indiana.

The study randomly chose four intermediate-level IEP reading classes at Indiana University to do the survey. The IEP is the program for ESL learners who are from various non-English-speaking countries. They attend the class to improve

their English reading comprehension ability to pass the TOEFL exam (Test of English as Foreign Language). Class meets Monday through Friday, fifty minutes per session. Every section lasts for seven weeks. Thus students attend class for about 30 hours. Forty-five students completed the pretest and the post-test given at the beginning and then at the end of the session.

The other sample in this study comes from two ABE (Adult Basic Education) programs in Indianapolis, Indiana. Twenty-eight randomly selected learners completed the pretest and the post-test. At the time of the pre-test, these learners were all new to the program, and most attended the class two to five hours per week. Classes consist mainly of individual work, with some group activities. Post-testing took place for each learner after 40 hours of attendance at the program.

Procedure

For both the pre-test and the post-test, the teacher of each class brought the questionnaire to the students. They informed them about the test procedure and explained occasional difficult words. Questionnaire administration lasted for about 20 minutes. Students could choose only to write down either anonymous I-D numbers or names. This is to avoid students being restricted by any external concerns about answering the questions.

## Results

After completing the pretest and post-test administration to both the IEP and ABE subjects, the researchers examined the current scale's reliability, the standard deviations of individual question scores, and the correlation coefficient between the pretest and the post-test. Using these statistics, decisions were made

to eliminate some items, to change the wording of some items and to adjust the item format for some questions. After the modifications, the scale was once again viewed by IEP students to ensure its clarity and appropriateness.

Reliability

To avoid any learning effects involved in the post-test, we consider here the results for the pre-tests. The Cronbach internal consistency reliability coefficient for the whole questionnaire was moderately high: 0.799 for the IEP group, and very high: 0.9215 for the ABE group. The Cronbach internal consistency reliability coefficient of the five sub-categories for both IEP and ABE groups are shown in Table 1:

Table 1

The internal-reliability alpha of IEP and ABE groups

| | IEP Alpha | ABE Alpha |
|---|---|---|
| Ability | 0.643 | 0.835 |
| Persistence | 0.728 | 0.803 |
| Locus Control | 0.444 | 0.245 |
| Aspiration | 0.636 | 0.764 |
| Activity | 0.621 | 0.632 |

All categories have moderately high reliability values except for the locus of control category.

Item Elimination

The internal reliability coefficients of the locus of control category were relatively low in both IEP (alpha: 0.444) and ABE (alpha: 0.245) groups. The

researchers found that this was associated with its three sub-categories: control by others, control by self, and luck or chance, which access different aspects and which included only two items each. The only way to increase the reliability of the locus of control category would be to increase the number of items. However, the locus of control is only one part of this self-efficacy scale, and so the number of questions which can be included in this sub-category is limited within the context of a brief questionnaire. Thus, after serious consideration, the researchers decided to eliminate the locus of control category, which includes six items, since data from these items was considerably less reliable than data from other parts of the questionnaire. But given the importance of locus of control, the researchers suggest that it may be necessary to develop a locus of control scale for adult literacy and ESL learners in the future.

Standard Deviation

The standard deviations of 26 of the 36 items for the IEP group and 32 for the ABE group were more than 1.00. This means most of the items distribute subjects' opinions well. However, the standard deviations of the three aspiration category items were low in both IEP and ABE groups (Table 2).

Table 2

The Standard Deviation of aspiration category items in IEP and ABE groups

| | Item 1 | Item 2 | Item 3 |
|---|---|---|---|
| IEP SD | 0.726 | 0.993 | 0.879 |
| ABE SD | 1.243 | 0.581 | 0.468 |

Wording Variations

The researchers suspected that the reason for the narrow range of response and low standard deviation of the three aspiration items mentioned above was the wording which tended to drive subjects' answers to the top of the scale due to social desirability. For example, one of the questions was: "I would like to be very good at reading." After discussions, the researchers found that this statement was a common intention of all learners for them to attend the programs. The low standard deviations of these three aspiration items signified their weak ability in spreading out respondents' answers. Thus, the three items were rephrased in an attempt to obtain more widely-distributed answers. For example, the original statement of one item was: "I would like to be very good at reading" It was rewritten to become: "One of my main goals is to be much better at reading by next year".

Item Format Adjustment

Among all the items, the most highly correlated items (significance level $<0.001$) between of the pre-test and the post-test for both IEP and ABE groups are a mix of ability and persistence category items. A further examination found that these pre-and-post-test highly correlated items are mainly on the first section, where the questions all started with "How well can you....?" It was hypothesized that the "how well" pattern might have an overly strong tendency to condition subjects' responses. In order to avoid this effect, the researchers decided to change the wordings of the items in section I to match the agree/disagree format of section II. For example, the question "How well can you participate in class discussion?"

has been changed to the statement "I do a good job of participating in class discussion."

More Adjustment and Final Check

After dropping the six locus of control items, rewording the three items of the aspiration category, and changing the format of section I questions, the items were reordered to avoid the grouping of items from the same category. The questionnaires were then reviewed by six IEP intermediate and advanced level students to check the understandability of the sentences. The final questionnaire is presented in the Appendix.

## Discussion and Conclusion

This study has designed a questionnaire suitable for assessing the self-efficacy of both adult literacy and English as a second language learners by both adopting existing questions from related fields and creating some new questions. This questionnaire went through pretests and post-tests by both English as a second language learners and adult literacy learners. Moreover, this questionnaire was examined and modified according to the results of the pretest and post-test. With its high reliability and face validity, this questionnaire should prove useful for measuring the general self-efficacy level of both the adult literacy and English as a second language literacy learners.

However, there are still limitations to this questionnaire. For reasons explained above, this questionnaire was not able to include the locus of control category, which is an important aspect influencing learners' self-efficacy perceptions. Besides, owing to the lack of related research about self-efficacy in both adult literacy and English as a second language fields, there may be additional

concerns related to adult perceptions in these areas which will be revealed by future research. In addition, the measure needs to be used with a wide variety of learners to establish a broad foundation of base-line information. Further and extended research is necessary for the development of the questionnaire with the contributions of more researchers and experts.

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## Appendix

### Questionnaire

1. I do a good job of participating in class discussion.
2. I enjoy learning.
3. I am not very good at learning writing skills.
4. I am able to keep reading even when there are other interesting things to do.
5. One of my main goals is to be much better at writing by next year.
6. I have no problem learning reading skills.
7. My problem is that I cannot get down to reading and writing when I should.
8. Sometimes I think that I am no good at writing.
9. When I decide to write something, I go ahead and do it.
10. Doing well in learning is not one of my main goals in life.
11. I think that I am pretty good at reading.
12. I avoid trying to read new articles when they look too difficult for me.
13. I find a lot of writing assignments hard to do.
14. When I decide to read something, I go ahead and do it.
15. I remember the important points in readings very well.
16. I feel insecure about my ability to write clearly.
17. One of my main goals is to be much better at reading by next year.
18. I think that I am pretty good at my writing work.
19. I can motivate myself to read.
20. My writing work worries me.
21. I find a lot of readings hard to understand.
22. It is difficult for me to concentrate on my learning task.

23. I am useless at schoolwork.

24. I enjoy writing.

25. I learn new words easily.

26. If I can't understand a reading the first time, I keep trying until I can.

27. My reading assignments worry me.

28. Reading is boring.

29. I can study well when there are other interesting things to do.

30. Sometimes I think that I am no good at reading.